

Testing Tropical Pastures



Gibberellic Acid & Urea Demonstration

Demo snapshot

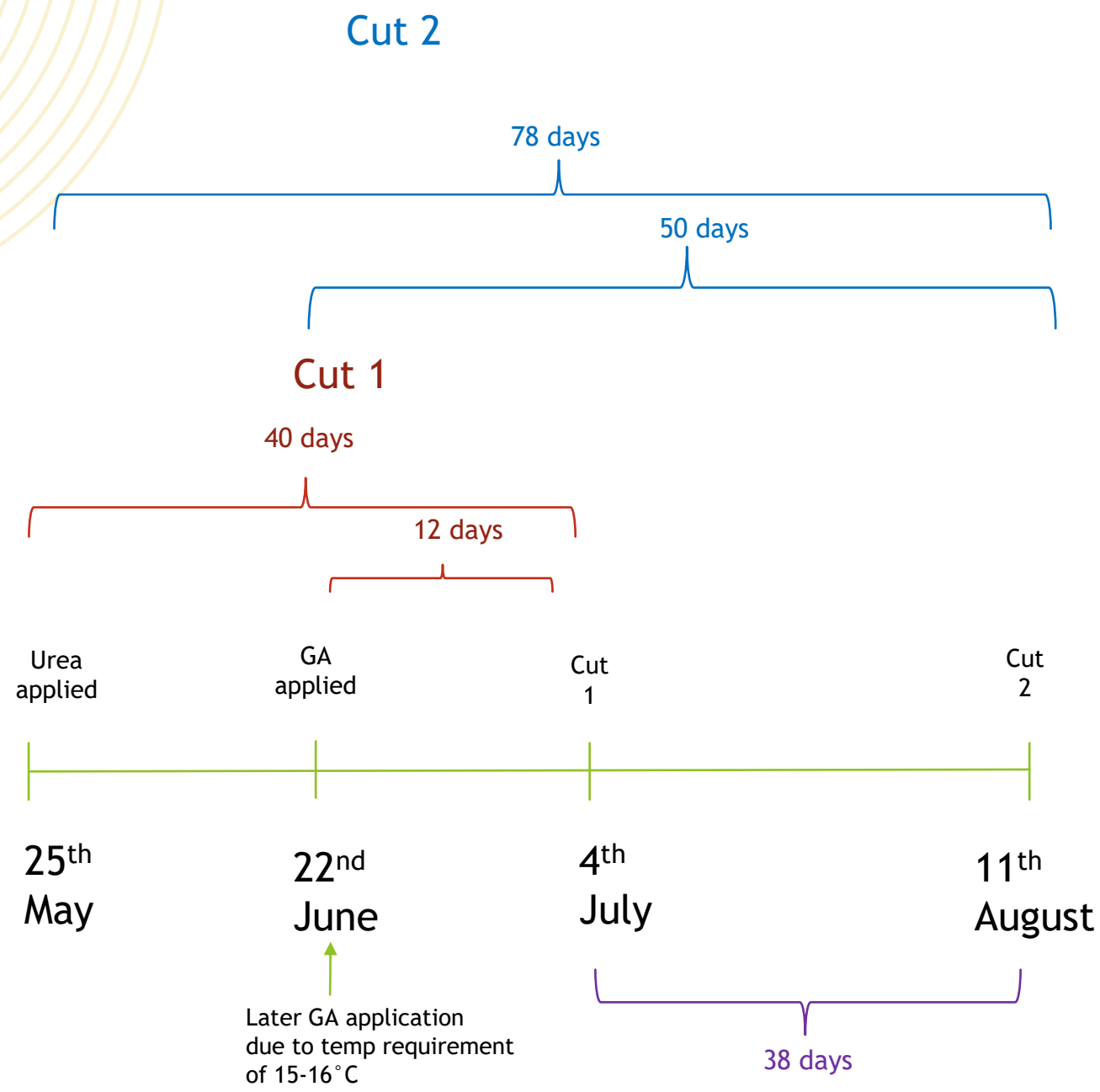
- Demo on 2021 sown kikuyu/digit grass pasture (with sub clovers & medics over-sown)
- Trial conducted to determine if winter production from sub-tropical paddocks could be increased with either Gibberellic Acid or Urea (or both)

Treatments

1. Nil (Control)
2. Gibberellic Acid
3. Urea
4. Gibberellic Acid & Urea

Gibberellic Acid & Urea Rates

Treatment	Rate
Nil (Control)	-
Gibberellic Acid	60ml/ha
Urea	125kg/ha
Gibberellic Acid & Urea	60ml/ha 125kg/ha

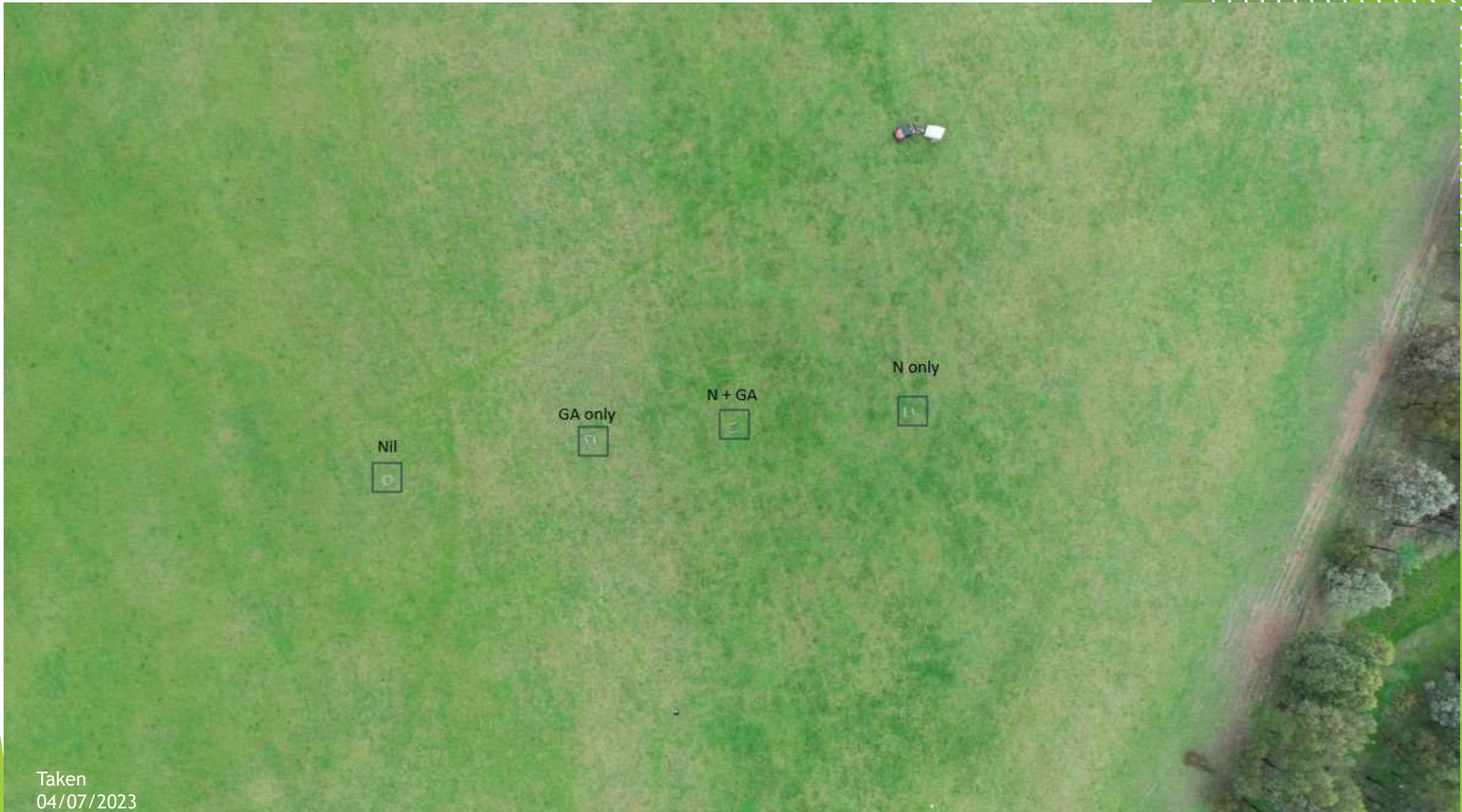


GIBBERELIC ACID & UREA TRIAL

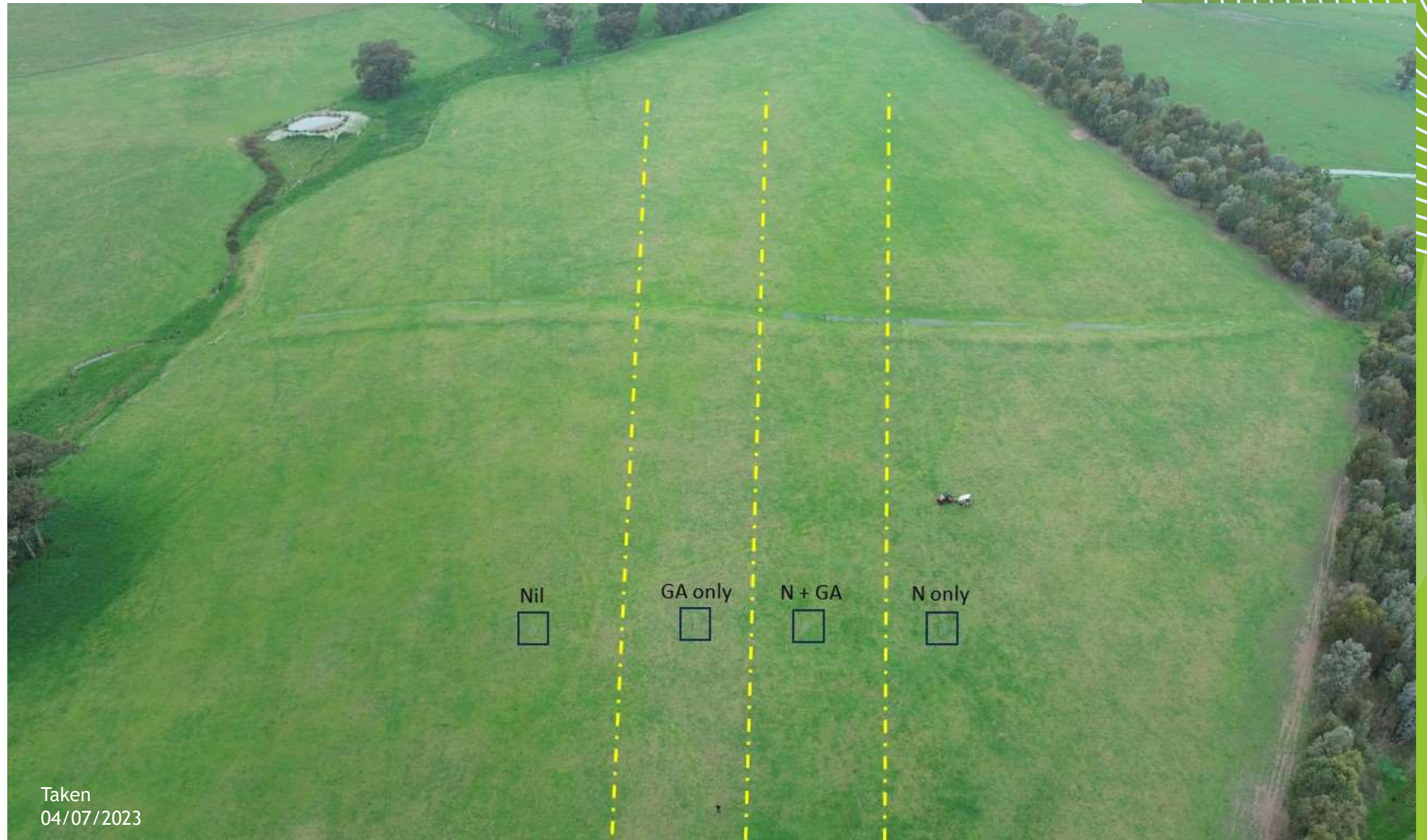




Taken
04/07/2023



Taken
04/07/2023



Nil



GA only



N + GA



N only



Taken
04/07/2023



Results

Dry Matter

Sub-Tropical

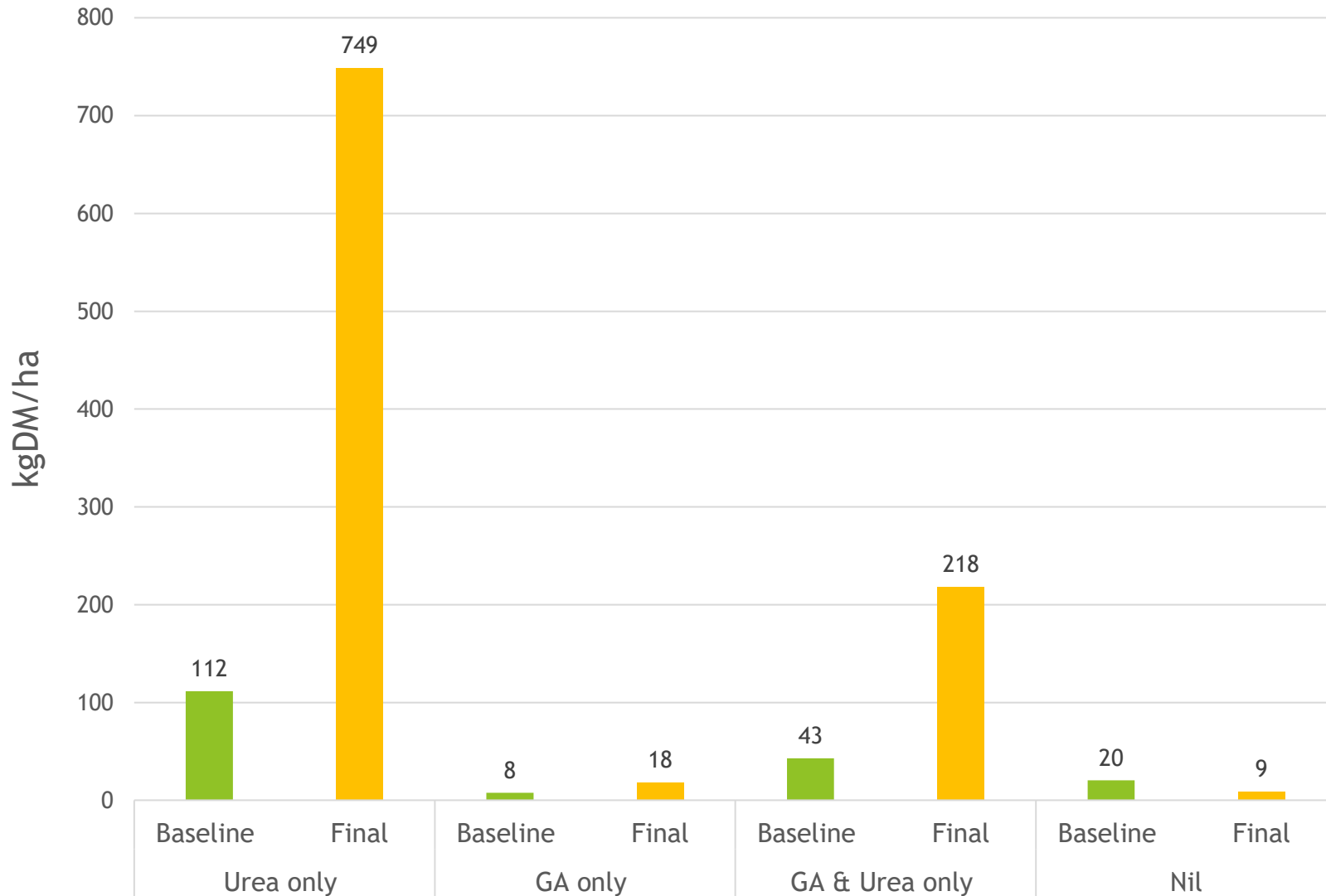
Annual Grass

Clover / Medic

Sub tropical Kikuyu & digit grass



Annual grass



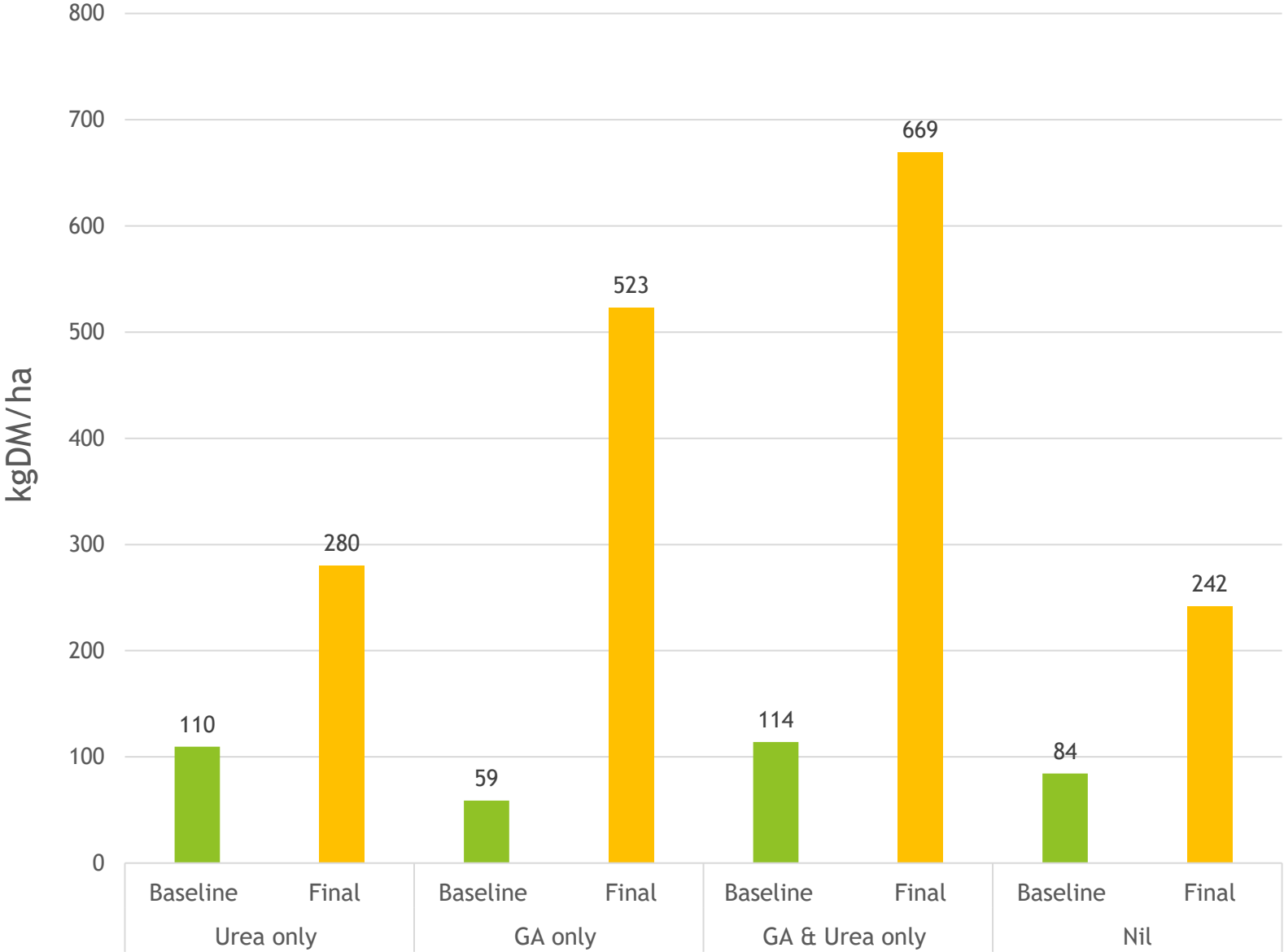
+637kg

+10kg

+175kg

-11kg

Clover/medic



+170kg

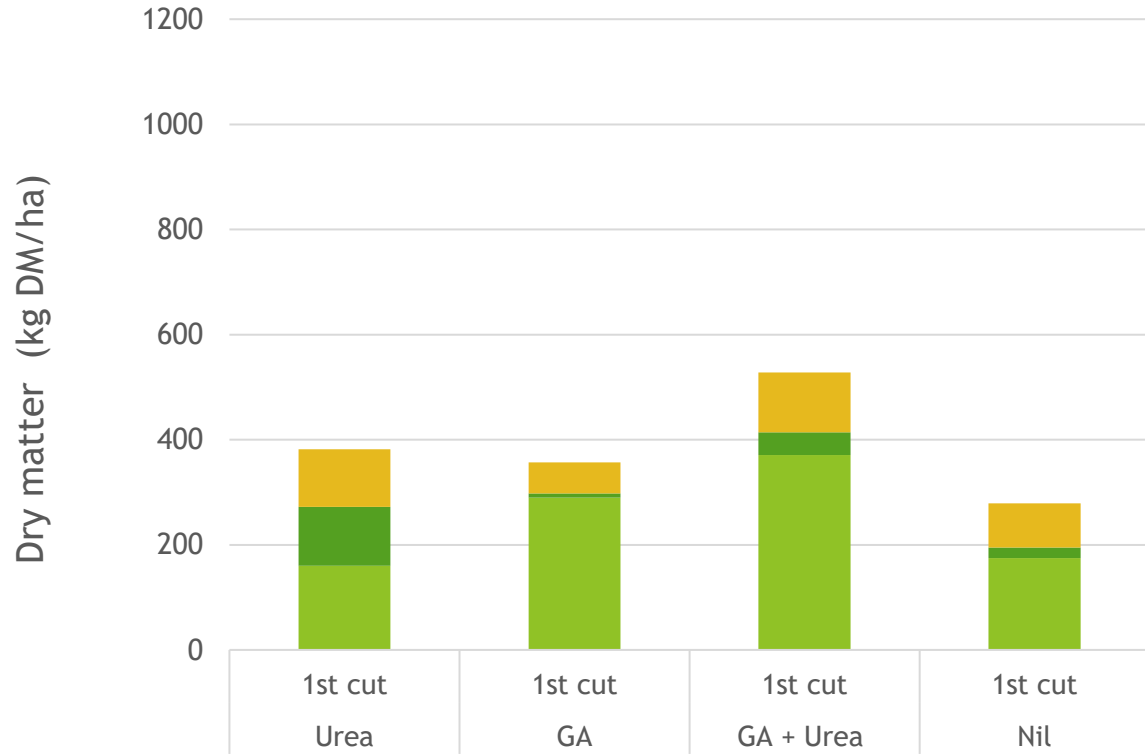
+464kg

+555kg

+158kg

Dry matter production - 1st cut

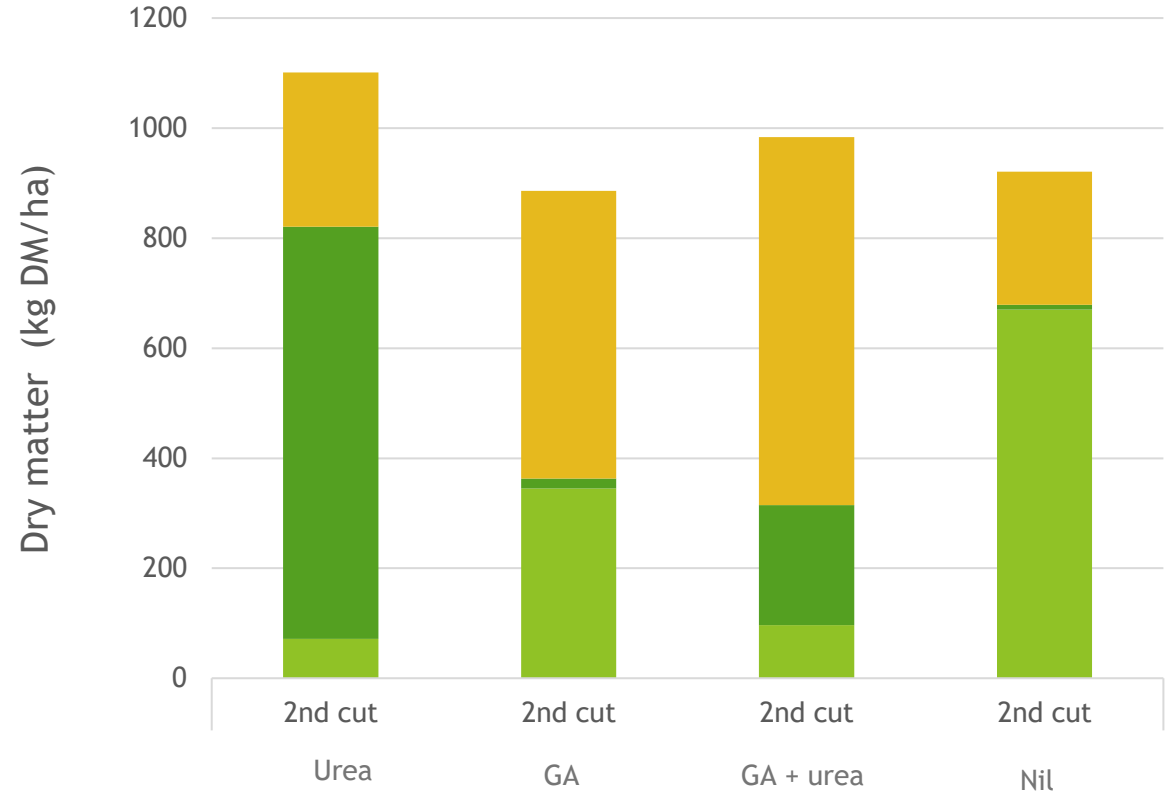
40 days after N
12 days after GA



■ STG ■ AG ■ clover / medic

Dry matter production - 2nd cut

78 days after N
50 days GA



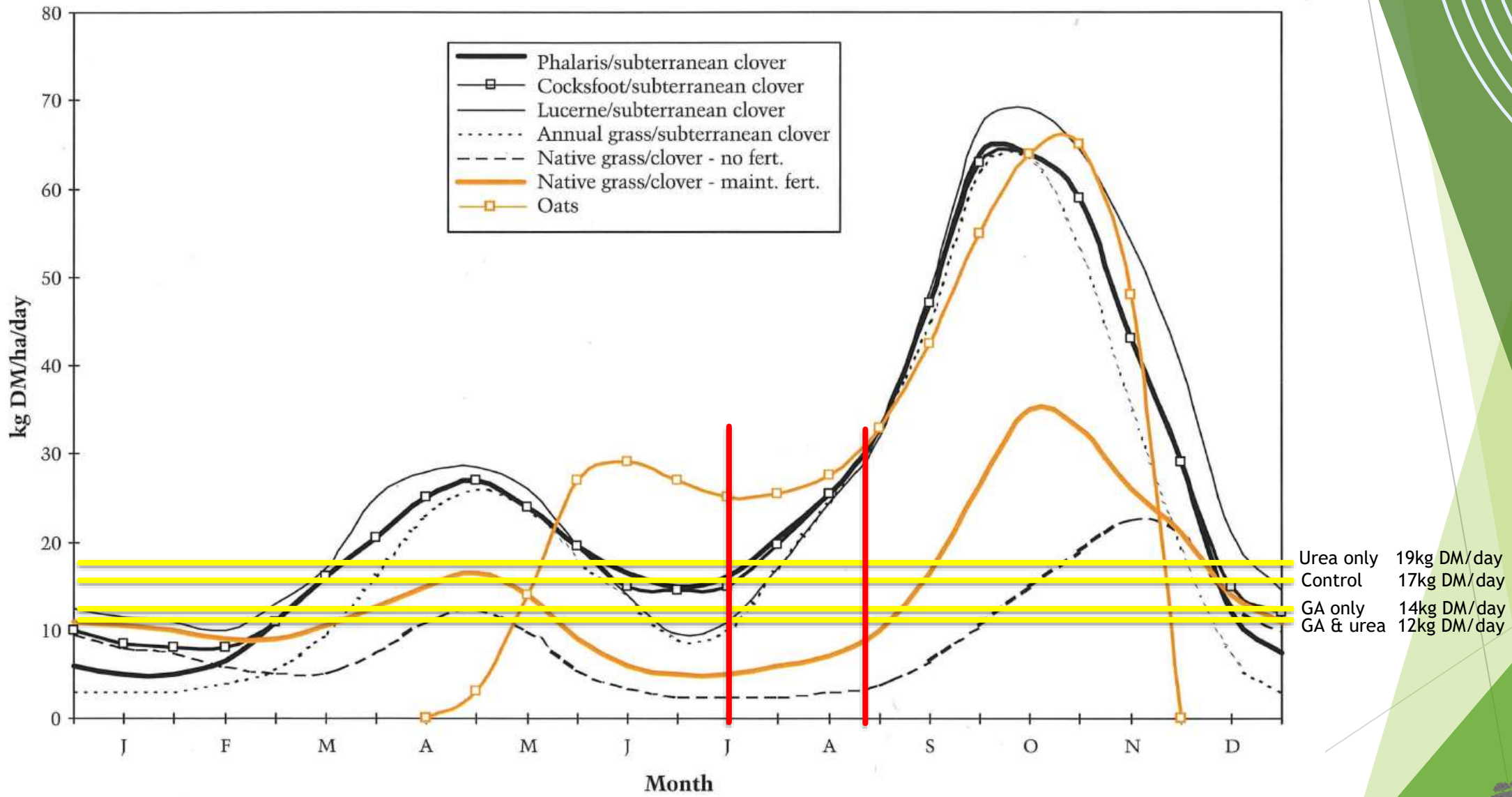
■ STG ■ AG ■ clover / medic

Effect on Total Sward

kg DM/ha Change (1st cut to 2nd cut)				
Treatment	Sub- tropical	Annual Grass	Clover/ medic	Total
Urea	-88	637	170	719
GA	55	10	464	529
GA + Urea	-274	175	555	456
Nil	495	-11	158	642

Growth Rate Jul-Aug (kg/ha/d)				
Treatment	Sub- tropical	Annual Grass	Clover/ medic	Total
Urea	-2.32	16.76	4.47	18.92
GA	1.45	0.26	12.21	13.92
GA + Urea	-7.21	4.61	14.61	12.00
Nil	13.03	-0.29	4.16	16.89

Estimated growth rate of pastures - South West Slopes



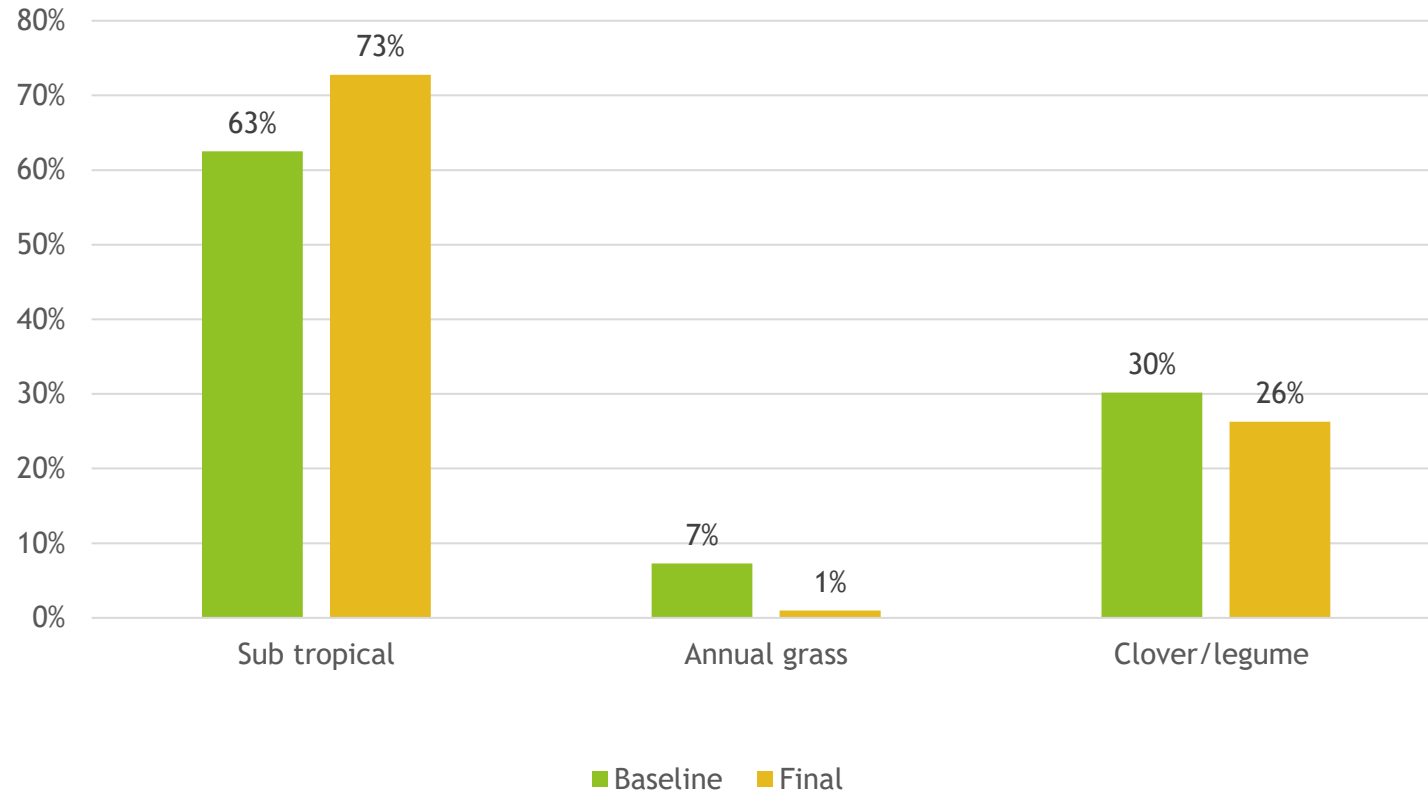
Botanical Composition

Sub-Tropical

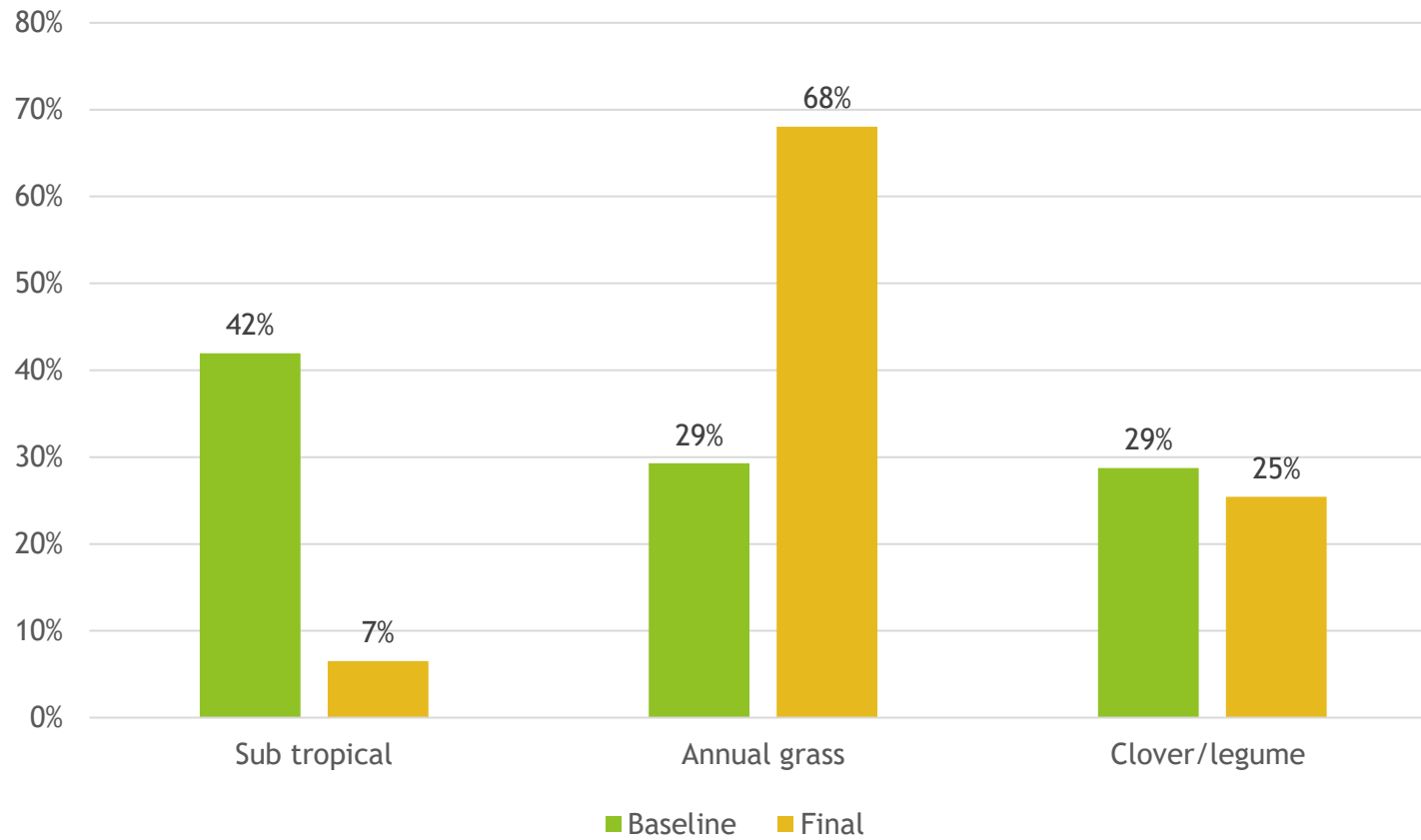
Annual Grass

Clover / Medic

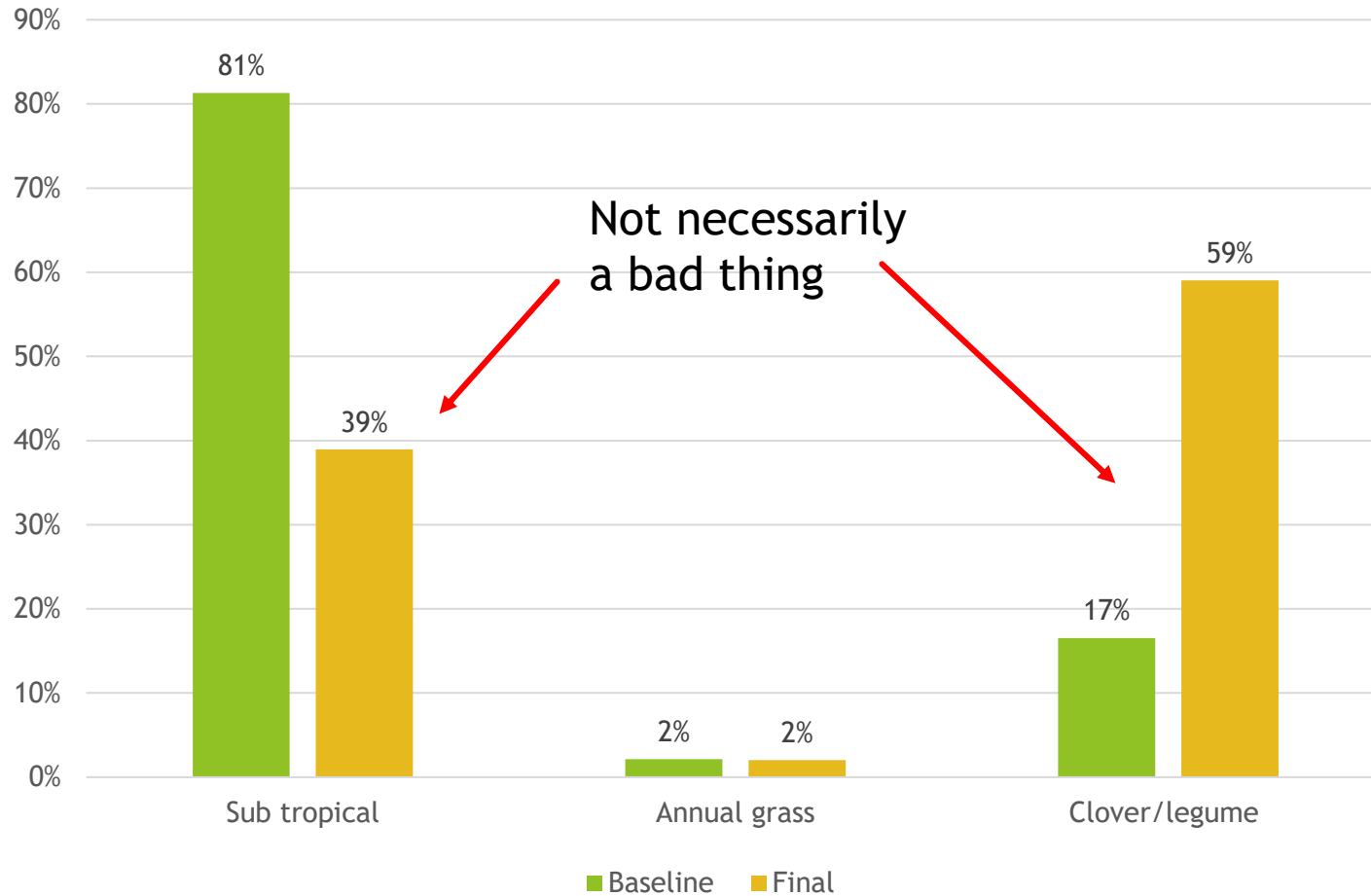
Control (Nil)



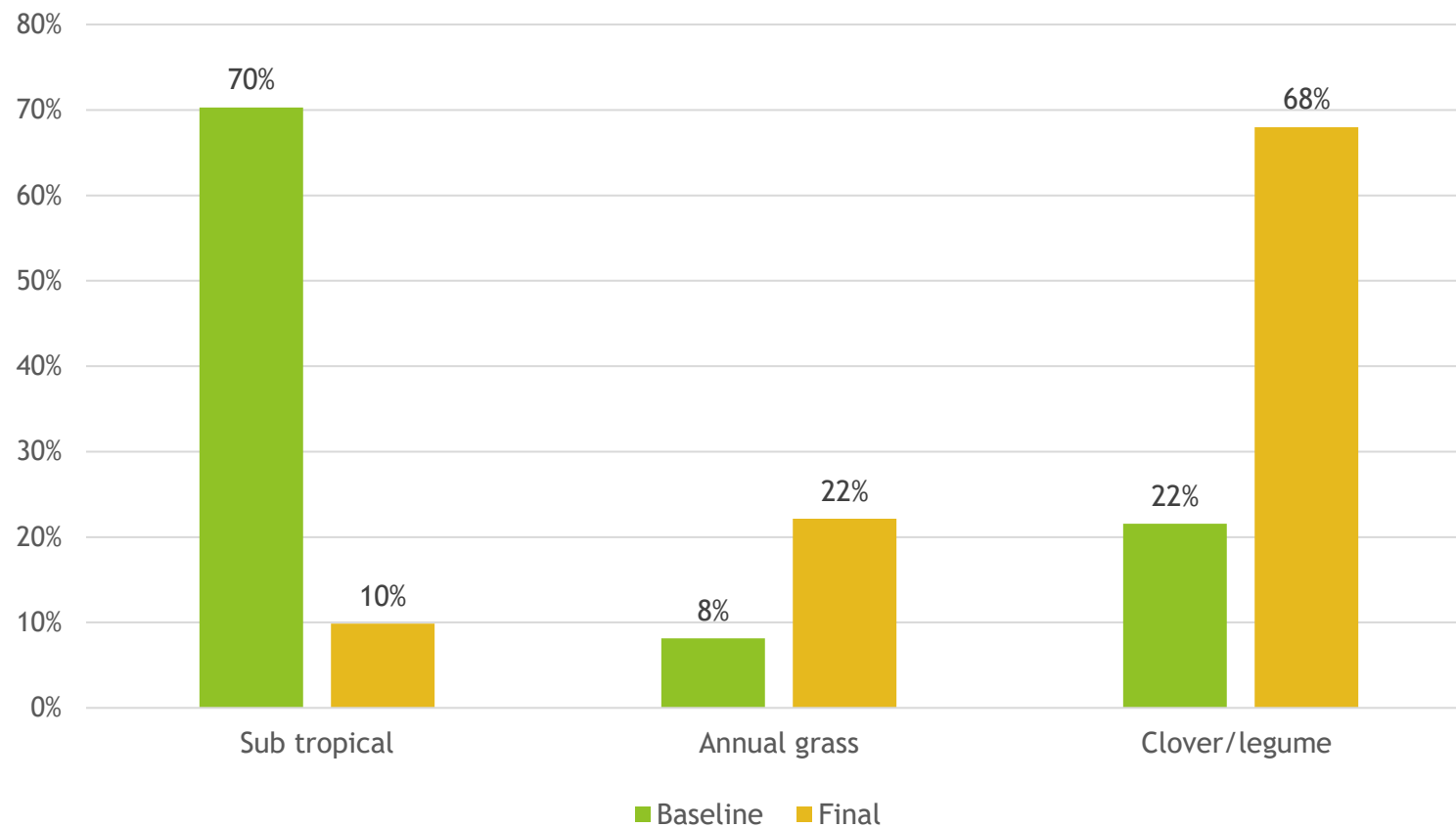
Urea only



GA only



GA & Urea



Comparison of each treatment to Control at 2nd cut

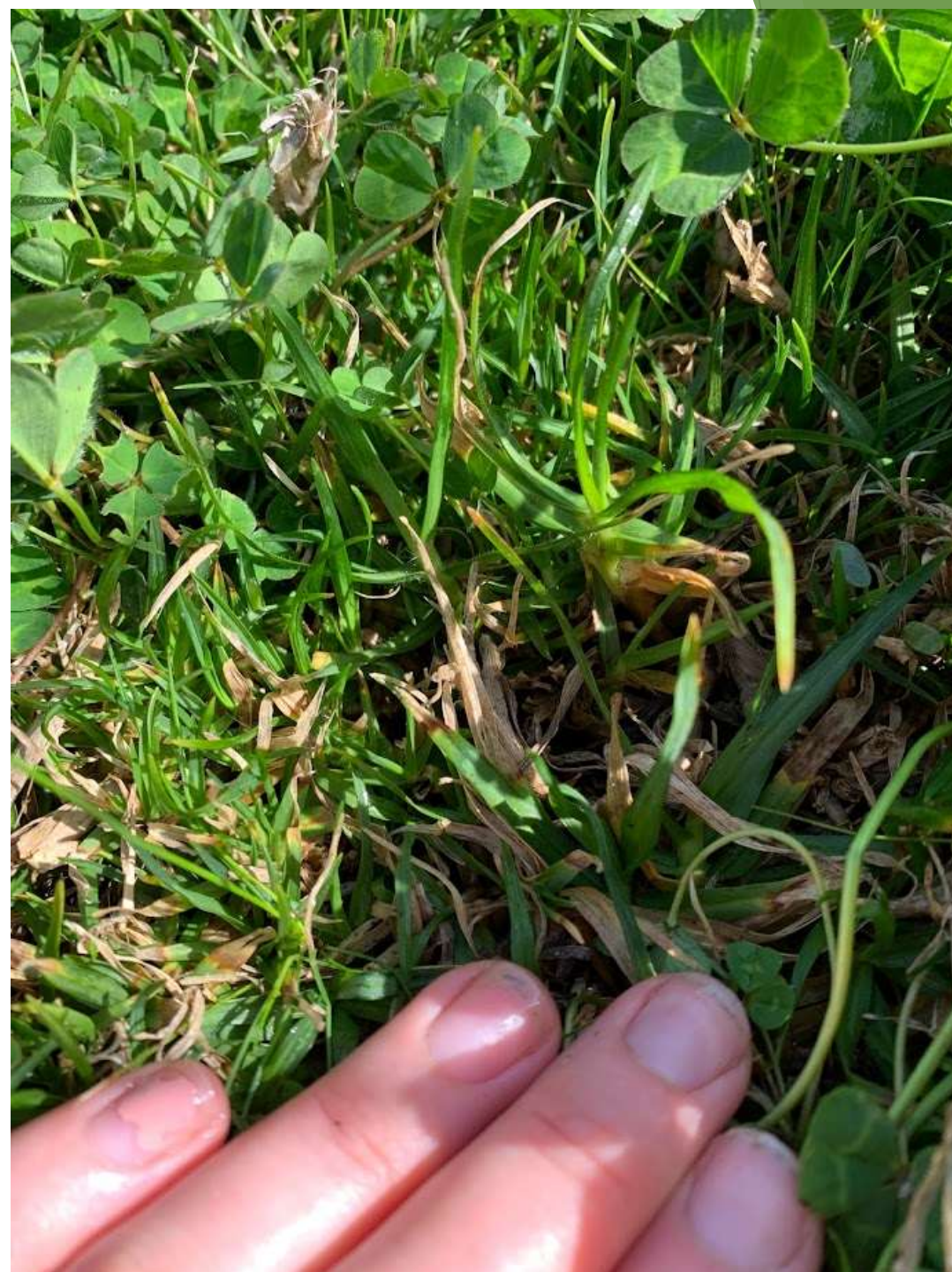
Treatment	Sub-tropical	Annual Grass	Clover/ medic	Total
Urea	-89%	8222%	16%	20%
GA	-49%	100%	116%	-4%
GA + Urea	-86%	2322%	176%	7%

- ➔ Urea and GA increased all winter growing species, especially AGs. For AGs, response to urea increased with time (ie cut 2>cut1) (This was to the detriment of Sub-tropical production).

- ➔ GA may have stimulated the sub-tropical (increased DM between cut 1 and cut 2) but this could have been from maturing effect/increased stem growth
- ➔ In a kikuyu pasture - (naturally, invasive) reduction in sub-tropical growth over winter isn't a bad thing if it allows increased clover growth This occurred in GA treatments
- ➔ Sub-tropicals generally performed better in winter in absence of treatments, perhaps due to stimulated competition from AGs/clovers & medics











Holbrook
Landcare Network